UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,298	04/02/2001	Jochen Kappel	51207-1030	4066

22827	7590	07/28/2005		

DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449

EXAMINER
LAO, SUE X

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/825,298	KAPPEL ET AL.
	Examiner	Art Unit	
	Sue Lao	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _22 April 2005_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _21-32_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _21-32_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _21 April 2001_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 20050721

DETAILED ACTION

1.   Claims 21-32 are pending. This action is in response to the amendment filed
4/22/2005. Applicant has canceled claims 1-20 and added claims 21-32.

2.   The text of those sections of Title 35, U.S. Code not included in this action can
be found in a prior Office action.

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.   Claims 21-32 are rejected under 35 U.S.C. 101 because the claimed invention is
directed to non-statutory subject matter.

The language of independent claims 21 and 27 raises a question as to whether
the claim is directed merely to an abstract idea that is not tied to a technological art,
environment or machine which would result in a practical application producing a useful,
concrete and tangible result to form the basis of statutory subject matter under 35
U.S.C. 101.

Independent claims 21 and 27 do not appear to require any computer hardware
to implement the claimed invention. These claims appear to define the metes and
bounds of an invention comprised of software alone. There is no support (i.e., explicitly
claimed computer hardware) in the body of the claims. The system of claim 27 appears
to be a system comprised entirely of software. Software alone, without a machine, is
incapable of transforming any physical subject matter by chemical, electrical, or
mechanical acts. If the "acts" of a claimed process manipulate only numbers, abstract
concepts or ideas, or signals representing any of the foregoing, the acts are not being
applied to appropriate subject matter. In re Schrader, 22 F.3d 290 at 294-95, 30
USPQ2d 1455 at 1458-59 (Fed. Cir. 1994). Transformation of data by a machine
constitutes statutory subject matter if the claimed invention as a whole accomplishes a
practical application. That is, it must produce a "useful, concrete and tangible result."

State Street, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106. State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, State Street does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 21-32 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution.

5.   Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard (U S Pat. 5,911,069) in view of author admitted prior art APA (page 1, line 18 – page 2, line 3) and Click et al (US Pat. 6,363,522).

As to claim 21, Beard teaches a method for providing exception handling (handle execeptions/errors) for a computer program (object-oriented program), the method comprising the steps of:

establishing (define exception classes) a plurality of classes of exception types (corresponding to types of exceptions, col. 9, lines 35-39),

throwing an exception (throwing the exception, col. 9, lines 3-5),

identifying an exception type for the exception (identify corresponding class, col. 9, lines 39-46), and

providing an exception notice for the exception (throw a recognizable exception, col. 9, lines 35-48).

Beard does not teach (1) that the plurality of exception types include application exceptions, system exceptions and validation exceptions, (2) providing an exception dictionary used to list instances of each exception type, and (3) that the identification uses the exception dictionary, wherein the identified exception type is one of an application exception, a system exception and a validation exception.

As to (1), APA teaches a plurality of exception (exception/error) types including application exceptions (application errors), system exceptions (system errors) and validation exceptions (validation errors). See page 1, lines 22-24. Given the teaching of

APA, it would have been obvious to include application exceptions, system exceptions and validation exceptions into the plurality of exception types in Beard. One of ordinary skill in the art would have been motivated to combine the teachings of Bear and APA because this would have allowed the exception handling in a networking environment (APA, page 1, lines 18 – page 2, line 1).

As to (2)-(3), Click teaches providing an exception dictionary (exception lookup table) used to list instances of each exception type (TrueException, FalseException), and identifying an exception type using the exception dictionary (access the lookup table to process the exception). See col. 2, lines 19-47. Given the teaching of Click, it would have been obvious to provide an exception dictionary and to identify an exception type using the exception dictionary in Beard as modified. One of ordinary skill in the art would have been motivated to combine the teachings of Bear and Click because this would have optimized exception handling by the elimination of redundant exception checks (col. 3, lines 36-47). When the teachings are modified as such, the exception type identified would have been one of an application exception, a system exception and a validation exception.

As to claim 22, Beard teaches capturing the exception (catch/handle the error, col. 9, lines 7-10).

As to claim 23, Beard teaches continuing processing of a current module in the computer program (handle the error but avoid the need to interrupt or terminate the running of the program, col. 9, lines 8-10), but does not teach this is applied to a validation exception. Click teaches continuing processing (eliminate/remove the necessary/redundant exception handling) is applied to a validation exception (range check, null pointer check, col. 1, lines 41-65; col. 6, lines 31-67). Therefore, it would have been obvious to continue processing when the exception is a validation exception. Note discussion of claim 21 for a motivation to combine. Determining the exception is a validation exception before such continuation would have been an obvious choice.

As to claim 24, Beard as modified teaches propagating the exception to a central place for handling if the exception is not a validation exception (propagate application errors and system errors to specific places in server, APA, page 1, line 23 – page 2, line

1). Determining the exception is not a validation exception before such propagation would have been an obvious choice.

As to claims 25, 26, Beard as modified teaches exception handling in an object-oriented distributed client/server environment (APA, page 1, line 18 – page 2, line 1). IDL is a typical object-to-object communication meta language for such environments. Examples are CORBA IDL and SOM IDL. Beard as modified teaches propagating exceptions between client and server (APA, page 1, line 23 – page 2, line 1), which is object-to-object communication. Therefore, it would have been obvious to use an IDL in Beard as modified to facilitate such communication. It is noted that an IDL typically clears/defines a set of operations and corresponding attributes and exceptions. Such examples are available in IDL specifications, such as those for CORBA and SOM environments. Therefore, providing a set of operations, attributes and exceptions in Beard as modified with an IDL would have been obvious.

As to claims 27-32, these are the system claims corresponding to claims 21-26, and thus note the discussions of claims 21-26, respectively.

6.   Applicant's arguments filed 4/22/2005 have been considered but are moot in view of the new ground(s) of rejection.

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. `Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 22, 2005

**SUE LAO
PRIMARY EXAMINER**